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PEST ALERT

Florida Department of Agriculture and Consumer Services, Division of Plant Industry
Charles H. Bronson, Commissioner of Agriculture

Two May Beetles, *Phyllophaga* ssp. (Coleoptera: Scarabaeidae), new to Florida and the United States

Michael C. Thomas, thomasm@doacs.state.fl.us, Florida Department of Agriculture & Consumer Services, Division of Plant Industry

INTRODUCTION: In December 2002, white grubs were found at the roots of a pygmy date palm (*Phoenix roebelenii* O'Brien) in a Homestead nursery (Fig. 9) by Holly Glenn and Dr. Catherine Mannion, both of the University of Florida Tropical Research and Education Center (TREC) in Homestead. The grubs were taken to the laboratory and reared to adults, emerging in late April, and were submitted to the Division of Plant Industry for identification. The adult was recognized immediately as being exotic and was identified by Dr. R.E. Woodruff as *Phyllophaga hondura* Saylor. A second exotic species of *Phyllophaga*, *P. crinita* (Burmeister), was discovered in a collection at TREC. Four specimens were collected at ultraviolet light traps on the TREC grounds by Ms. Glenn in April 2002.

DISTRIBUTION: *Phyllophaga hondura* was described from Honduras but has been recorded also from Belize and Costa Rica (Saylor 1943, King 1984). The only known Florida localities thus far are in the vicinity of Homestead (Fig. 11). *Phyllophaga crinita* is known from northern Mexico, Texas and east to Alabama. In Florida it is known only from the grounds of TREC and two other localities north and east of there (Fig. 11).

HOST PLANTS: King (1984) listed *P. hondura* as of economic importance in Central America, but did not provide any specific plant associations. For *P. hondura*, the single larval host association in Florida is with pygmy date palm (*Phoenix roebelenii*). It is likely that this species, like many *Phyllophaga*, will have a fairly broad host range. The largest number of specimens were collected in a native tropical hammock (Fig. 10). No Florida host plant associations are known thus far for *Phyllophaga crinita*, as all specimens have been collected at light, but it has been reported to be a sorghum and turfgrass pest in Texas.

ADULT IDENTIFICATION: ***Phyllophaga hondura:*** The adult is a medium-sized (11-14 mm) brown beetle very similar in general appearance to most species of *Phyllophaga* (Fig. 1). However, the pronounced tumescences on the pygidium of the female are unlike anything found in any U.S. species of the genus (Fig. 2). The combination of incised clypeus, glabrous pronotum, and pronounced pruinosity of the body (Fig. 3) should be diagnostic in southern Florida, where relatively few *Phyllophaga* occur. The male antennal club is less than half the length of the head (Fig. 4). The male genitalia (Fig. 5) also are diagnostic (King 1984). ***Phyllophaga crinita:*** The adults of this species (Fig. 6) are smaller than those of *P. hondura*, the pronotum is conspicuously hairy, but not or barely pruinose, the female pygidium is simple, the male antennal club is longer than the head (Fig. 7), and the male genitalia are diagnostic (Fig. 8). The male genitalia will separate both of these species from previously recorded Florida species.

LARVA IDENTIFICATION: King (1984) provided a key to the larvae of the economic species of Central America and illustrated diagnostic characters, but larvae of *P. hondura* cannot be separated at present from those of native Florida species.

DETECTION: Adults of most species of *Phyllophaga* are strongly attracted to light and ultraviolet light traps should be effective in surveying for this beetle.

REFERENCES:

King, A.B.S. *1984. Biology and identification of white grubs (Phyllophaga) of economic importance in Central America. Tropical Pest Management 30: 36-50.*

Saylor, L. W. *1943. Revision of the rorulenta group of the scarab beetle genus Phyllophaga. Proceedings of the Biological Society of Washington 56: 129-142.*

Fig. 1. *Phyllophaga hondura*, habitus, female.

Fig. 2. *Phyllophaga hondura*, pygidium, female.

Fig. 3. *Phyllophaga hondura*, female, head and anterior body. Note pruinosity and medially incised clypeus.

Fig. 4. *Phyllophaga hondura*, male, head and anterior body, lateral view. Note small antennal club and lack of pubescence on pronotum.

Fig. 5. *Phyllophaga hondura*, male genitalia.

Fig. 7. *Phyllophaga crinita*, male, head and anterior body, lateral view. Note large antennal club and pubescence on pronotum.

Fig. 9. Locality of first collection of *Phyllophaga hondura*.

Fig. 6. P*hyllophaga crinita*, habitus, male.

Fig. 8. *Phyllophaga crinita*, male genitalia.

Fig. 10. Locality of largest collection of *Phyllophaga hondura*.

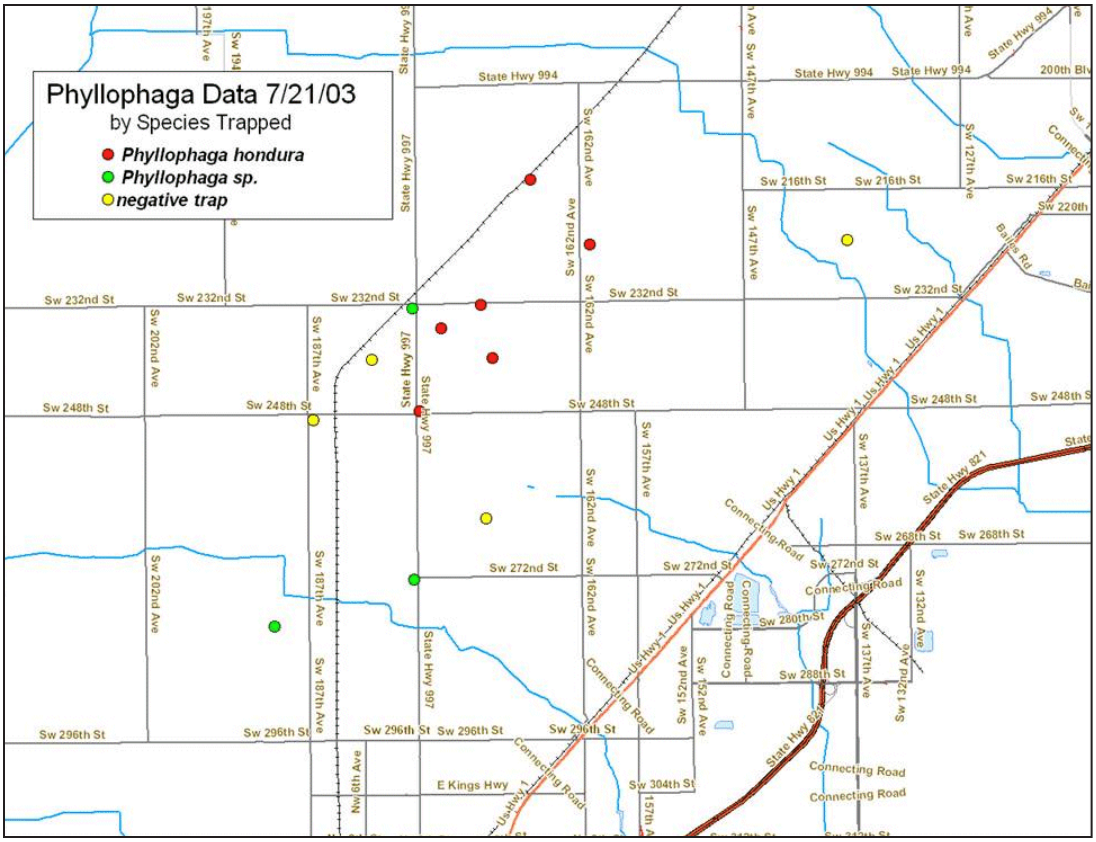

Fig. 11. Distribution of exotic *Phyllophaga* spp. in Homestead area as of July 21, 2003.
Note: both species were collected at Krome Ave. and 232nd St.

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